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LISTING OF CLAIMS:

- 1. (Currently amended): A charge pump circuit comprising:
- a voltage increasing stage, wherein the voltage increasing stage comprise at least one charge pump section;

a voltage decreasing stage in parallel with the voltage increasing stage, wherein the voltage decreasing stage comprises at least one charge pump section; and

a shared input to the voltage increasing and voltage decreasing stages,

wherein the or each charge pump section of the voltage increasing stage and of the voltage decreasing stage comprises a first input switch and output switch in series connected together at a first junction node, and a second input switch connected between the input and a second junction node, a first charge pump capacitor connected between the first junction node and a first control line and a second charge pump capacitor connected between the second junction node and a second control line, wherein the second junction node provides control signals for the first input and output switches.

- 2. (Currently amended): A circuit as claimed in claim 1, wherein the voltage increasing stage increases is for increasing an input voltage by an integer multiple of the difference between a low supply line voltage and a high supply line voltage and the voltage decreasing stage decreases the is for decreasing an input voltage by the an integer multiple of the difference between the a low supply line voltage and the a high supply line voltage.
 - 3. (Canceled)

Serial No.: 10/542,674 Docket No.: 1217/213

4. (Currently amended): A circuit as claimed in claim $\underline{1}$ 3, wherein the voltage increasing stage comprises a plurality of charge pump sections, each for increasing the a corresponding input voltage by the difference between a low supply line voltage and a high supply line voltage.

5. (Canceled)

- 6. (Currently amended): A circuit as claimed in claim 1 5, wherein the voltage decreasing stage comprises a plurality of charge pump sections, each decreasing the a corresponding input voltage by the difference between a low supply line voltage and a high supply line voltage.
- 7. (Currently amended): A circuit as claimed in claim 1 3, wherein the or each charge pump section of the voltage increasing stage and of the voltage decreasing stage comprises an input switch and an output switch in series connected together at a junction node, and a charge pump capacitor connected between the junction node and a control line.

8. (Canceled)

- 9. (Currently amended): A circuit as claimed in claim 1 &, wherein complementary signals are applied to the first and second control lines.
- 10. (Currently amended): A circuit as claimed in claim 1 8, wherein non-overlapping signals are applied to the first and second control lines.

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11. (Canceled)

12. (Currently amended): A circuit as claimed in claim 1 11, wherein complementary

signals are applied to the first and second control lines.

13. (Currently amended): A circuit as claimed in claim 14, wherein non-overlapping

signals are applied to the first and second control lines.

14. (Currently amended): A circuit as claimed in claim 1 8, wherein the first input switch

and output switch are operated in complementary manner.

15. (Currently amended): A circuit as claimed in claim 1 8, wherein the a charge pump

capacitor of at least one charge pump section of the voltage increasing stage and the a charge

pump capacitor of at least one charge pump section of the voltage decreasing stage are connected

together.

16. (Currently amended): A circuit as claimed in claim 1, wherein the voltage increasing

stage increases is for increasing an input voltage by an integer multiple of the difference between

a low supply line voltage and a high supply line voltage, and the voltage decreasing stage

decreases the is for decreasing an input voltage by the an integer multiple of the difference

between the a low supply line voltage and the a high supply line voltage, and wherein a voltage

is applied to the shared input between the low supply line voltage and the high supply line

7

voltage.

Serial No.: 10/542,674

Docket No.: 1217/213

17. (Previously presented): An electronic device including a circuit as claimed in claim 1.

18. (Previously presented): A device as claimed in claim 17, wherein the device

comprises a liquid crystal display.

19. (Previously presented): A device as claimed in claim 18, wherein the circuit and a

TFT switching array for the display are provided on a common substrate.

20. (New): A charge pump circuit comprising:

a voltage increasing stage, wherein the voltage increasing stage comprise at least one

charge pump section;

a voltage decreasing stage in parallel with the voltage increasing stage, wherein the

voltage decreasing stage comprises at least one charge pump section; and

a shared input to the voltage increasing and voltage decreasing stages,

wherein the charge pump section of the voltage increasing stage and of the voltage

decreasing stage comprises an input switch and an output switch in series connected together at a

first junction node, and a charge pump capacitor connected between a junction node and a

control line.

21. (New): A circuit as claimed in claim 20, wherein the voltage increasing stage

increases an input voltage by an integer multiple of the difference between a low supply line

voltage and a high supply line voltage and the voltage decreasing stage decreases the input

8.

Scrial No.: 10/542,674

Docket No.: 1217/213

voltage by the integer multiple of the difference between the a low supply line voltage and the high supply line voltage.

- 22. (New): A circuit as claimed in claim 20, wherein the voltage increasing stage comprises a plurality of charge pump sections, each increasing a corresponding input voltage by the difference between a low supply line voltage and a high supply line voltage.
- 23. (New): A circuit as claimed in claim 20, wherein the voltage decreasing stage comprises a plurality of charge pump sections, each decreasing a corresponding input voltage by the difference between a low supply line voltage and a high supply line voltage.
 - 24. (New): A charge pump circuit comprising:
- a voltage increasing stage, wherein the voltage increasing stage comprise at least one charge pump section;
- a voltage decreasing stage in parallel with the voltage increasing stage, wherein the voltage decreasing stage comprises at least one charge pump section; and
 - a shared input to the voltage increasing and voltage decreasing stages,

wherein the charge pump section of the voltage increasing stage and of the voltage decreasing stage comprises a first input switch and output switch in series connected together at a first junction node, and a second input switch connected between the input and a second junction node, a first charge pump capacitor connected between the first junction node and a first control line and a second charge pump capacitor connected between the second junction node and a second control line, and

Scrial No.: 10/542,674 Docket No.: 1217/213 wherein a charge pump capacitor of at least one charge pump section of the voltage increasing stage and a charge pump capacitor of at least one charge pump section of the voltage decreasing stage are connected together.

Scrial No.: 10/542,674 Docket No.: 1217/213

10